The Pedagogical Implications of National Education Policy 2020 for Primary In-Service Teacher Professional Development: An Analysis of the Feasibility and Scope of Innovation

SHORT SYNOPSIS

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by

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ABSTRACT

The National Education Policy (NEP) 2020 envisions the development of a system of education ingrained in Indian ethos with the goal of making India a leader of global knowledge. It suggests a range of interventions, including in the domain of teacher education. To achieve the sustainable development goal of quality education, India needs to fulfil the current deficit of over 1 million school teachers and streamline the continuous professional development (CPD) of its 9.7 million teachers. Considering the vastness of the policy, it is important to investigate the status of teachers and reflect on the existing process of teacher professional development to understand the possible implementation. The existing studies on NEP 2020 mostly discuss its relevance in the present context and the contradictions between its ambitious nature and the ground situation. There is scope for studying the pedagogical perspective. The proposed research aims to analyse the pedagogical implications of NEP 2020 for primary in-service teacher professional development, to investigate the feasibility of the related proposed interventions vis-à-vis the existing system, and to explore the scope of innovation. Using the mixed qualitative and quantitative methods - analytical literature review and policy analysis, as well as, the situation analysis and identification of gaps to be done through the survey study of existing teacher professional development programmes, the paper seeks to explore innovative solutions. The research may be useful for all the stakeholders in school education and teacher education as a reference in assessing the existing CPD practices and formulating new ones.

Keywords: NEP 2020, Continuous Professional Development (CPD), In-Service Teachers, Primary School Education, Innovative Pedagogy

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Introduction

National Education Policy (NEP) 2020 states, ‘‘This National Education Policy envisions an education system rooted in Indian ethos that contributes directly to transforming India, that is Bharat, sustainably into an equitable and vibrant knowledge society, by providing high-quality education to all, and thereby making India a global knowledge superpower…’’ (Ministry of Education, 2020, p.6.). This vision statement makes two main propositions - ‘education system rooted in Indian ethos’ and ‘making India a global knowledge superpower’. The policy envisages creating an education system based on an indigenous foundation which can facilitate India gaining a global positioning. The previous education policies of India can be revisited to understand the context and rationale of such a big goal of the most populated and developing country or to see if there are any progressive linkages found between different policies after the independence in 1947. The National Policy on Education 1968 (NPE 1968), by focusing on the increased access to primary education, adult literacy, and technical education, provisioned a uniform educational structure across the country. The structure of schooling of 10+2+3 was introduced (Ministry of Education, 1968). The National Policy on Education 1986 (NPE 1986), while emphasising the importance of assimilating the cultural heritage of India, proposed to modernise and internationalise education. Other important provisions were the universalisation of primary education, science and technology education, vocational education, and adequate access to education for children with special needs (CWSN). Institutions like the National Council of Educational Research and Training (NCERT) and the National Open School (National Institute of Open Schooling, NIOS), etc., were established. The NPE 1986, together with the amendments in 1992 as the Programme of Action, outlined the limitations of implementing the NPE 1986 and presented a roadmap. The other elements of policy included the decentralisation of education, appreciating the role of teachers, enhancing vocational education to increase employment prospects, promoting value-based education, and so on (Ministry of Human Resource Development, 1986).

To sum up, the previous policies envisioned education for a nation to meet two extreme ends and to join different dots. One end is to develop its citizens by providing quality universal

education structured around indigenous knowledge, value, and modern science, and the other end is to go along with the fast-changing world by internationalising and becoming global. Further down the line, the NEP 2020, though, acknowledges the progress in education the country has made so far and admits the unfinished tasks of achieving universal equitable access to quality education. With a goal to develop 21st-century learners, NEP 2020 targets having the nation and her citizens avail global opportunities through the best of education. That would further lead to social and economic progress. India has 50% of her citizens below 35 years old, which will remain the same for the next decade, and being the nation of youth for the next many years finds the need to develop its citizens holistically, well-acquainted with the indigenous knowledge base and empowered with 21st-century skills like critical thinking, creativity, innovation, scientific temper, etc., so to become a global citizen who will help her yield the fruit of the demographic dividend.

To materialise the vision and fulfil the aims, a broad range of interventions would obviously be required, including at the levels of planning, programming, and implementation. In this regard, several guidelines for institutional organisation and four National Curriculum Frameworks (NCFs) are being developed; two of those NCFs for foundational stage and school education are publicly shared as their draft versions. They suggest the frameworks of curriculum based on the newly designed schooling structure in the stages of 5+3+3+4, respectively, as foundational (3 years of pre-primary + grades 1 and 2), preparatory (grades 3-5), middle (grades 6-8), and secondary (grades 9-12). They present a structure for furthering the education policy while formulating the aims and objectives of education as well as principles for educational content, classroom practices, pedagogy, and a scheme of evaluation. Two other National Curriculum Frameworks (NCFs) for teacher education and adult education are under process. Though NEP 2020 emphasises the importance of education and proposes to provide quality education at par with the global level, a huge challenge lies at the implementation level. Towards achieving the national goal of universal education to fulfil the commitment of ensuring the Right to Education (Ministry of Law and Justice, 2009) and attaining the international commitment to the Sustainable Goal of Education - SDG 4 (Department of Economic and Social Affairs, 2015), India has gradually improved on the fronts of student enrolment, school infrastructure, and teacher recruitment in

the last few decades; however, achieving quality universal education is still miles to go. NEP 2020 states the inadequacy of quality education to the extent that children lack the basic literacy and numeracy skills at the foundation level, and thus the proposed National Initiative for Proficiency in Reading with Understanding and Numeracy (NIPUN) is being implemented as a mission to be attained by the year 2026-27 (Department of School Education and Literacy, 2022). The aspect of quality has a broad canvas with aims like the development of children as independent thinkers with all the required skill sets, knowledge, and attitudes to lead a good life, adhere to human values, be sensitive towards fellow beings and the environment, and have the capacities to participate well in economic and political processes. NEP 2020 suggests a holistic approach to learners' development and learning in an inclusive and equitable environment, with learners' active engagement in constructing knowledge using creative and experiential means. Teacher education and professional development are the major aspects in this regard. The teacher is one of the central entities in the entire implementation mechanism of education.

The Teachers

According to UDISE+ 2021-22, India has around 9.5 million teachers in school education (grades 1 - 12) in total under all types of management – government, aided, private/unaided, and others. Out of which, 1.8 million teachers work in primary sections (grades 1-5) in government schools (Department of School Education and Literacy, 2022, p. 32 & 45). In the newly-proposed school structure, the existing primary sections fall into two stages; the last two years of the foundational stage (grades 1-2) and the three years of the preparatory stage (grades 3-5). Chapter 15 of NEP 2020 briefly outlines the way the teacher should be developed. It characterises the teacher as mentioned in para 15.1, ''Teachers must be grounded in Indian values, languages, knowledge, ethos, and traditions, including tribal traditions, while also being well-versed in the latest advances in education and pedagogy.'' (Ministry of Education, 2020, p. 42). Furthermore, the policy emphasises the structural change of pre-service teacher education by 2030, whether at the programmatic or institutional level or related to the preparation of teacher educators. The major proposal is to

streamline pre-service education as a 4-year integrated bachelor programme to be conducted by multidisciplinary higher education institutions. For in-service teachers, Chapter 5 of NPE 2020, para 5.1 states, ‘‘The quality of teacher education, recruitment, deployment, service conditions, and empowerment of teachers is not where it should be, and consequently, the quality and motivation of teachers do not reach the desired standards.’’ (Ministry of Education, 2020, p. 20). The policy recommends restoring the status of teachers and respect for the teaching profession. It strongly advocates for the need to reformulate and strengthen teacher education to develop humane facilitators who help the students discover their talents and realise their physical and intellectual potential. Teacher development is conceptualised as the development of teachers as facilitators for knowledge construction who understand and practice the multidisciplinary nature of knowledge, integrate theory and practice dimensions, and engage with issues and concerns of contemporary Indian society from a critical perspective.

The National Curriculum Framework for Teacher Education is awaited; the earlier framework of NCFTE 2009 proposed a broad structure of teacher education as professional preparation for teachers (National Council for Teacher Education, 2009), which NEP2020 has maintained. It sees a teacher as a reflexive practitioner. The central point of the discussion is to make the entire teaching-learning process shift from teacher-driven to learner-centred, with the overarching goal of developing students as global citizens. The trends of the last many decades support and advance this notion. In the 1980s, the role of capacity building and teacher training was considered very important using modern pedagogical methodologies and the application of diverse teaching-learning material (TLM). Multiple languages (3 - language formula) were taken as an important pedagogical strategy, and local language as a key player. In the late 90s and early 2000s, the focus was on joyful learning experiences, moving away from rote learning to critical construction, and taking education as a tool for personal or economic growth and nation-building.

In the last decade, a global focus has been on developing a knowledge economy and inclusion for all sections of society that encompasses a sense and practices of diversity and inclusion inside a classroom, whether caste, class, gender, disability, ethnicity, etc. NEP2020

follows this line of thought and objectifies them as universal access to educational opportunities and lifelong learning, development of children for nation-building, teaching-learning focused on learning outcomes and enhancing learnability, modern pedagogies and methodologies, holistic and multidisciplinary education i.e. shift from compartmentalized approach, flexibility and choice in curriculum design, subject choices, emphasis on early childhood education and foundation literacy and numeracy, vocational and skill development, practical skills and employability, use of technology to make learning more accessible and personalised, assessment reforms, a shift from rote learning and high-stakes examinations to a variety of assessment techniques and monitoring frameworks as well as teacher education and continuous professional development, and so on.

Continuous Professional Development

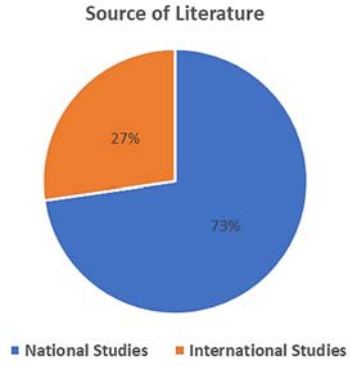
The professional development of in-service teacher education is discussed as continuous professional development (CPD) under para 5.15, the ‘‘continuous opportunities for self-improvement’’ and learning the ‘‘the latest innovations and advances in their professions’’ (Ministry of Education, 2020, p. 22). It further suggests the multi-faceted capacity enhancement, including workshops and online learning modules, and platforms for sharing ideas, and effective and innovative practices. 50 hours of annual CPD opportunities are proposed for the professional development to understand the modern pedagogies and teaching-learning techniques to increase the experiential, integrative, holistic, inquiry-driven, learner-centred, discussion-based, flexible, and, of course, pleasurable aspects of education (Ministry of Education, 2020). The National Curriculum of School Education (NCFSE 2023) reflects on such a need by advocating for the development of an ecosystem for teacher development. That includes both structural changes and chances for personal growth. It states that teachers' professional development enables them to become capable and introspective individuals who can propel educational advancement. (National Council of Educational Research and Training, 2023). NCFSE 2023 focuses on academic coaching and mentorship support to teachers and schools through various means and institutions like the National Council of Education Research and Training (NCERT), State Councils of Education Research and Training (SCERT), District Institutions of Education and Training (DIET),

Block Institutions of Education and Training (BITE), Block Resource Centres (BRC), Cluster Resource Centres (CRC) or School Complexes through the quality monitoring and supervision, capacity-building workshops, on-site support, and the creation of support materials. (National Council of Educational Research and Training, 2023). The underlying notion of this aspect is that the practitioners need continuous professional development to update and enhance their knowledge, skills, values, and disposition; work efficiently; understand the context of work and changing scenarios; learn new techniques and strategies; get exposed to similar best practices across the sector and beyond; and so on. Considering the vastness of the vision and aims of NEP2020, it is important to investigate the status of teachers and reflect on the existing process of teacher professional development to understand the possible implementation of the policy.

Literature Review

Situated in the background of the above discussion, the related literature has been reviewed in three broad sections, discussing the

1. Pedagogical implications of NEP 2020 for primary in-service teacher professional development
2. Overview of the existing system of teacher professional development, and
3. Related interventions and innovations in India and outside the country.



The source of the literature referred to in this review includes 73% (16) of studies situated in India and 27% of studies (6) that comprise studies either done in an international perspective or situated internationally, out of the total 22 studies.

1. Pedagogical implications of NEP 2020 for primary in-service teacher professional development

The following studies discuss the systemic, structural, and operational aspects of the pedagogical implications of NEP 2020 for school education, especially in the domain of primary in-service teacher professional development.

Alam and Debnath (2022) analyse the guidelines for teacher education in India with regards to NEP 2020 and recommend the multi-level involvement of stakeholders, including the local governance and community. They argue for fetching the credibility of stakeholders through transparent actions and participation and the coordination between different government bodies.

Dar and Jan (2023) take an interpretive approach to reflect on the roles of teacher educators and teachers in view of NEP 2020. With an analysis of a random sample of 300 teachers from the schools in the Kashmir division (India) using a professional commitment scale, the study highlights the provisions of the policy and recommends teacher education as a

collective of teaching skills, pedagogical theory, and professional skills. The study concludes with an emphasis on professional development programmes and sensitisation programmes to nurture the professional commitment, attitude towards teaching, and job satisfaction among the teachers.

Mahanta (2023), through the qualitative documentary study, deliberates the provisions of NEP 2020 for teacher education in India and finds them effective in enhancing teacher education, specifically the multi-disciplinary approaches rooted in Indian values and culture. The study outlines the challenges of implementation and concludes with suggestions, which include the revision of the curriculum, teachers' better understanding of the subject content and a focus on teaching-learning strategies. Technological support, stress management mechanisms, habits for self-learning, and improving teaching equipment are other suggestions.

Maity and Jana (2023), in their descriptive study, work on a stratified convenient sampling of 61 persons, including teachers, principals, scholars, and others in the Indian context. The study gathers their views on pre-service and in-service teacher education with regards to NEP 2020. The study finds that in-service teacher assessment, including continuous evaluation of teachers through students' feedback, is essential. The other findings point out the need for technological intervention and special training for the inclusion and upliftment of teachers. A uniform curriculum and well-monitored processes for pre-service teacher education are widely supported by the respondents.

Misra and Tyagi (2019), through a review and analysis of various literature, highlight the concerns of in-service teacher education and advocate three globally emerging approaches to in-service education of teachers, i.e., induction, peer group mentoring (PGM), and continuing professional development (CPD), and strategies to implement the troika approach of 'Induction-PGM-CPD' for enhancing the in-service teacher education in India. The paper concludes with developing platforms of learning and sharing for the teachers to nurture a learning culture, mitigating knowledge gaps, generating creative ideas, facilitating better

decision-making, supporting efficiency and competence, developing understanding of know-how, and making the initiative time- and cost-effective.

Misra and Tyagi (2022), through policy analysis, discuss whether NEP 2020 empowers the Indian education system to adopt the concept of Continuous Professional Development (CPD) and create opportunities for teachers to adopt it holistically. The study mentions the shift in the approach from in-service education of teachers (INSET) to CPD, with two-fold suggestions that teachers should be responsible for their development and existing provisions and prospects for teachers' CPD to be strengthened further. With the conceptual idea of CPD as a life-long learning process, the study recommends extending the scope of CPD to all types of institutions, whether government or non-government.

Mohanta (2022) discusses the goals of NEP 2020 towards developing children for the current job market and suggests qualitative changes with regard to curriculum and pedagogy in school education in India. Besides implementing vocational education in a phased manner and having a mandatory counsellor in each school to support the students in tackling the problem of drop-outs, the study concludes that a language strategy should be in place and the teacher should be plurilinguistic and trained in imparting the Indian knowledge system in an easy-to-understand manner. A reflective conception of the policy and the actions to achieve it, is essential for the teachers.

NCERT (2022) through this guideline document, conceptualises CPD as a continuum of pre-service teacher education and in-service teacher education and as a long-term process that encompasses emerging needs of quality school education as well as teachers' career progression in India, which was not the case in the in-service education of teachers (INSET). CPD includes the consciously planned activities that support the teaching career of a teacher or head teacher to update existing knowledge or learn new things through online and offline modes. Thus, the idea is to cater to the unaddressed needs of teachers while fulfilling the goal of education.

Saha and Sarkar (2023) compare the NEP 2020 with previous education policies of India, emphasising teacher education, through a qualitative study using document analysis and content analysis methods. It briefly discusses the growth of teacher education in India and the related provisions in NEP 2020, and concludes by appreciating the very policy referring to its deeper focus on the progress of a skilled workforce of teachers. Furthermore, it states that the value of technology in preparing teachers and their continuous professional development are some of the core provisions that make NEP 2020 different from its predecessors.

Singh et al. (2023) discuss the need for an inclusive pedagogy referring to the Socially Economically Disadvantaged Groups' (SEDGs) as recognised by NEP 2020 to address the diversity among the learner population and to harness the benefits of the diversity dividend in India. The paper presents a conceptual analysis of inclusive pedagogy, concluding with three important pillars; the cognitive component in the form of teachers' knowledge of strategies and provisions, the effect in terms of their value and disposition to inclusion, and the action components of teachers' practices in the classroom. It further proposes the need to create an empirical knowledge base related to the conceptual and practical aspects of inclusive education and more research into the new pedagogical approach.

UNESCO (2021) reports that the understanding around teachers and their education has undergone a paradigm shift focusing on the professionalisation of this profession. The report analyses different aspects of the scenario of education, the situation of teachers, and teacher education in India and brings the issue of technological innovation forward. It recommends, for the betterment of teacher recruitment and service terms, increasing the number of teachers, especially in new areas proposed in NEP 2020 like arts-integration, vocational education, early childhood care and education, etc., and ensuring teacher autonomy and professional development. Teacher governance and community of practice are two major developmental areas, as the report emphasises.

Waris and Shaheen (2024), by reviewing the existing literature, assess the recommendation of NEP 2020 for teacher education and highlight the problems in implementing those recommendations. The study concludes by suggesting measures like improving teacher

recruitment strategies, targeted teacher capacity-building initiatives focused on local needs rather than generic training, and more organised and paid internships.

In a nutshell, the above studies, by analysing the provisions of NEP 2020, recommend working on teacher governance like recruitment, terms of service, technological infrastructure, and teaching equipment, as well as opportunities for continuous professional development (CPD), which develop professional commitment, attitude towards teaching, job satisfaction, teacher autonomy, community of practice, developing platforms of learning and sharing, and teacher careers. Capacity-building initiatives in both face-to-face and virtual modes should focus on local needs rather than generic training through professional development programmes and sensitisation programmes targeting teachers' understanding of the subject content and related teaching-learning strategies, disposition towards self-learning and responsibility towards their self-development, developing language strategies for teaching-learning, and practical understanding of new areas like the Indian Knowledge System, Environmental Education, Arts-integrated learning, the STEAM Approach to Education, Vocational Education, Early Childhood Care and Education, etc. Extending the scope of CPD to other stakeholders beyond the government schools and stakeholder engagement at different levels of schooling are other major recommendations. An empirical knowledge base related to the conceptual and practical aspects of inclusive education and more research into the new pedagogical approach to facilitate evidence-based practice, coupled with continuous evaluation of teachers, will inform the interventions. Furthermore, a bunch of studies present an overview of the existing system of teacher professional development in India and some related studies from countries across the world.

2. Overview of the existing system of teacher professional development

The following studies discuss the ongoing interventions for teacher professional development in India and compare them to the interventions in other countries with similar situations.

Banerjee et al. (2017) analyse six main challenges of market equilibrium effects, spillovers, political reactions, context dependence, randomisation or site-selection bias, and piloting bias in drawing conclusions from a localised randomised controlled trial under the programme,

Teaching at the Right Level, implemented by the organisation Pratham, towards scaling-up the implementation of the policy. Despite the enormity of the scale-up, the study indicates that the equilibrium effects were not truly a concern in this case because the outcome of interest was human capital, where there is no strategic dependency. There was no formal investigation of spillovers, although some between teachers may have happened. By relocating the programme from urban India to rural Uttar Pradesh, Bihar, Uttarakhand, Haryana, and back to Uttar Pradesh, interventions were continuously stress-tested for context dependence. This demonstrates how Pratham's methodology may raise students' foundational reading and math learning levels in a range of settings. While there were political problems in Uttarakhand, these were more the result of internal strife and turnover than Pratham-related problems, and the programme's expanded form did not directly cause negative political reactions. Randomisation bias and scaling-up implementation issues undoubtedly had an impact on the initial results. The sequence of studies might be interpreted as a large-scale process of persuasion, wherein the experimental technique served not only as an evaluation tool but also as a catalyst for the government's adoption of the policy. In order to stimulate policy change, sequential experimentation is becoming a tool in the political economy. The identification of a promising concept, which requires the development of a model of the mechanism in question, is the first step towards the successful implementation of a large-scale public policy. These concepts can be identified through smaller-scale experiments by identifying the source of specific problems and then conducting trials to deal with them. Once a programme has passed the proof-of-concept test and is chosen to be scaled up, the next step is to develop an implementable, large-scale policy version and subject it to a stage-two trial, meaning a larger trial that will confront and document the problems that the programme would have at scale. To address the possibility of randomisation bias, the organisation that implements a stage-two trial must be the organisation that will eventually implement it at scale if it were to be scaled up. Finally, any potential political backlash will have a chance to manifest itself if the scale-up is carried out with an organisation that will finally implement it within its standard operating procedures and at levels sufficiently sufficient to detect market equilibrium effects. In addition, it is important to anticipate the backlash from the beginning and to create a base for reform.

Chakraborty (2022) presents a descriptive survey study of the teaching attitudes of distance and conventional in-service trainee teachers using a purposive sample of 200 trainee teachers teaching at different universities in West Bengal (India) from mixed-gender and rural-urban locations and a questionnaire called TAST (Teaching Aptitude Scale of Teachers). The study concludes that the difference in teaching attitude is significantly higher among conventional in-service trainees than among distance in-service trainees. A similar trend based on gender and location was seen. Though there were certain limitations to the study, somehow it can be deduced that the conventional mode of training is still more effective than the distance mode.

Godisela and Muthenna (2022) evaluate the current situation in India viz-a-viz the provision of NEP 2020 regarding the extensive use of technology in teaching and learning. The study through literature review states that though the Digital India Campaign supports transforming the country into a technology-orientated knowledge society, the current situation poses a huge challenge. Basic issues of lack of electricity, inadequate access to devices like laptops (4.4% rural / 23.4% urban) and the internet (14.9% rural and 42% urban) in Indian households, or insufficient availability of technological means and training opportunities in teacher education institutions and schools need to be addressed. The study recommends looking into implementing NEP 2020 from a bottom-up approach rather than a top-down approach.

Sarangapani et al. (2024) in this report focus on issues concerning the teaching profession and teacher preparation in India. The report is based on eight background research papers using primary and secondary data carried out in eight states. It examines the demographic profile of teachers, their working conditions, and the availability and supply of teachers. The report points out the inadequacy of the number of qualified teachers, especially in primary education (46%), the shortage of teachers in many subjects, including science, mathematics, English, and new areas of arts, sports, vocation, etc., the need to improve service terms and working conditions, as well as the gender imbalance.

Singh, A. K. et al. (2020) review the literature regarding the status of teacher development, focusing on the inception, structure, and modalities of Continuous Professional Development

(CPD) in the three South Asian countries of India, Pakistan, and Bangladesh. The recent inclusion of CPD across three countries is largely undefined, and the existing model of in-service training is the cascade model, which the study mentions is not linked with student outcomes or the professional growth of teachers. Though the impact of CPD in three countries is not fully assessed, the study outlines the challenges of quality, funding, and scale, as well as the lack of an appropriate institutional and organisational landscape for CPD. The study's conclusion emphasises the need for a more thorough, all-encompassing, and organised framework for CPD in order for countries in the region to increase its efficacy and reinforce its effects. It also calls for greater research on the roles of inspection, monitoring, and teacher standards.

Tyagi and Misra (2019) study teacher educators' perceptions about different aspects of Continuing Professional Development (CPD) concerning their teaching experiences and the nature of serving institutions. With the underlying notion of the importance of teacher education and teacher educators in the development of teachers, the study, through stratified cluster random sampling of aided and self-financed teacher training institutions in five districts of Uttar Pradesh (India), analyses the responses of 97 respondents who do not perceive CPD in its real sense and understand it as the conventional way of one-off, isolated, and short-term in-service training only. The study concludes with discussing CPD as a life-long learning experience. It further recommends creating opportunities for a community of practice among the educators and collective development of learning processes. The study suggests that the state and the programme developers need to define the CPD in its functional aspect.

Yan and Saguin (2021), in their comparative study between India and China, evaluate the policy capacity of planners that impacts the operational effectiveness of capacity development (CD) initiatives, as perceived by the teachers. The CD is conceptualised as the measure to enhance the achievement of education outcomes and the quality production of education services. In the study, the policy capacity is defined as a framework at three levels of analytical, operational, and political capacities, respectively: the ability to evaluate effectiveness, the ability to use policy instruments and arrangements, and the ability to

engage the public and reconcile political differences. Using a purposive sampling for the teacher survey conducted in government middle schools in Beijing and Delhi, the study finds that teacher CD practices significantly vary between the two places. Beijing's training provision structure involves all levels of bureaucracy, whereas in Delhi it is centralised at the state level. The level of teacher satisfaction with CD opportunities matching their needs is 96% inappropriate for Delhi teachers and 50% appropriate for Beijing teachers. The other fronts of career growth, budgetary provisions for CD, etc., have significant differences between the two settings. The study recommends improving policy capacity for better CD efforts.

These studies discuss different ongoing interventions for the professional development of teachers located in India and other countries that indicate problems of the teacher shortages and uneven distributions of the teachers. They recommend opting for a bottom-up approach to implementation and enhancing the policy capacity to boost the efforts of CPD. Though the teachers' acceptance of modern methods of CPD would obviously be reflected in a while, the better conception of CPD and the role of monitoring and setting standards would expedite the inclusion.

3. Related interventions and innovations in India and outside the country

The further section of the literature review has focused on some interventions and innovations in the domain of teacher professional development in India and outside the country.

Körkkö et al. (2022) investigate the process of implementing professional development plans (PDPs) as a tool for teachers' continuing professional learning in the schools of Finnish Lapland (Finland). Developed through design-based research, the successful implementation of PDP requires the school's strategic plan to be well in place, states the study, and conceptualises PDP to structure teachers' professional learning in terms of their learning goals and plans of action, which improves teachers' reflective skills, visible professional learning, and everyday practices. Since Finnish teachers are not familiar with this model, the purpose of the study was to evaluate the model and identify further needs. The analytical

study using the tools of interviews and focus group discussions (FGD) with teachers and principals concludes that to better align with organisational needs, professional identity work needs to be reinforced with organisational goals. The PDP process is impacted by contextual and strategic aspects, including working circumstances, strategy implementation, and more subjective elements like emotions. The study emphasises that more research is needed in these areas.

Lopes et al. (2023), through a literature review, attempt to determine the arguments and debates about teacher professionalism in the last 10 years concerning the transformative teacher attitude in Portugal. With the mention of the central themes of teacher professionalism and teacher agency at the core of these debates, the study concludes that the imposed professionalism has posed challenging times for teachers in the backdrop of growing discontent with opting for teaching as a profession. The study emphasises the vitality of teacher agency being developed through collaborative engagements and works. The three levels - personal, school, and society - can respectively be interpreted as strengthening the teacher's transformative power, including knowledge, skills, values, and disposition, for which research like action research emerges as the main driver to inform professional practices. The school level can be translated into the collective ability to perform, where school leadership and teacher autonomy become integral. The societal level coincides with a social movement to re-establish teachers' positions as people and important drivers of education and development.

Zahedi et al. (2021) discuss professional learning communities (PLCs) as one of the most effective means to improve teacher practice and student learning, as emerged in international research. The study conceptualises PLCs as a grouping of teachers doing collaborative work with an aim to increase student learning through collaborative teaching-learning practice, problem-solving, data-driven decision-making, and continuous improvement through inquiry or reflective dialogue, conceptually grounded in social constructivism, situated learning, and improvement science. The study of implementing PLCs with a purposive sample of 79 participants - teachers and school leaders at two schools in India, without having any comparison group or comparison data of the participants- concludes using a mixed

qualitative and quantitative study design and data from interviews, FGDs, PLC reports, etc. that effective PLCs can influence student learning by increasing collaboration between teachers and can enhance evidence-based practice through collaborative problem solving, unity and consistency in practice, supportive leadership, and so on. The study recommends the need for adequate planning and functionality of PLCs in the Indian context.

Finally, the above examples of interventions and innovations from across the world advocate for developing teacher agency and teacher communities of collaborative practice, such as 'Professional Learning Community (PLC)' or other networks that have a lasting impact on improving classroom processes and student learning outcomes. All three contextual levels - personal, school, and societal - influence the teachers, and a strong strategy and effective planning can help shape the practice.

Research Gaps: The studies around the NEP 2020 and its implications for teacher education mostly discuss the existing gaps between policy and implementation, the incomplete goals set in previous policies, like the universalisation of education, a robust system of teacher education, the availability of resources, and so on. They outline the challenges of implementation and point out the need to work on improving teacher governance, multiple modes of CPD, meeting the socio-global needs, etc. The studies debating the existing works of teacher professional development across the world point out the need to mitigate the teacher shortages and to change the approach to policy implementation as well as developing teacher autonomy and professional learning groups. Mostly dealing with theoretical analysis of the contextuality and applicability of NEP 2020, the gaps in the existing research lie in the study of the implementation of the policy and the empirical research into the operational realities.

Description of the Broad Area

The proposed research aims to analyse the pedagogical implications of the National Education Policy (NEP) 2020 for primary in-service teacher professional development, to investigate the feasibility of the related proposed interventions vis-à-vis the existing system of the professional development of the in-service teachers, and to find out the scope of innovation. Here, primary education is referred to as the foundational stage (grades 1-2) and preparatory stage (grades 3-5) of the schooling structure, proposed in NEP 2020.

Significance of the study: A variety of debates are ongoing around materialising the ideas of NEP 2020 into action. This study may add value to that. NEP 2020 proposes to provide education at par with the global level, but a huge challenge lies at the implementation level. Any towering structure needs an adequately strong foundation, so it does require a strong primary teacher education to expect further development. This study dealing with the development of primary teachers is important in this regard and may be useful as a reference in assessing the existing practices and formulating new ones in education (in general) and teacher education (in particular). It may be a useful reference for all the stakeholders in school education and teacher education, including policy-makers, curriculum developers, functionaries, educators, teachers, and so on. Since NEP 2020 is a recent development, a few studies have been done so far in the domain of school education. Mostly, they discuss its relevance in the present context; contradictions between its ambitious nature and the ground situation; comparative studies between this policy and the former ones; etc. Thus, there is scope for studying the pedagogical perspective of NEP 2020 and the situations of its implementation on the ground.

Research Questions: The proposed research seeks to answer the following questions:

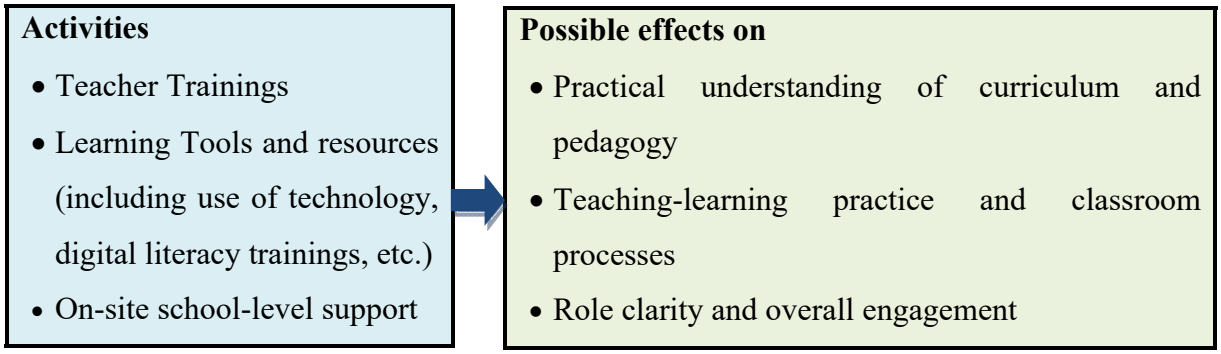
- What are the provisions of NEP2020 for the continuous professional development (CPD) of primary in-service teachers and their pedagogical implications?
- What kind of teacher professional development mechanism exists at the District Institutes of Education and Training (DIET), the government implementing body of primary in-service teacher education?

- To what extent does the existing teacher professional development support provided by the DIET empower the teachers in their capacity-building and teaching-learning practices?
- What is the scope of intervention or the gaps in the teacher professional development practices at the DIET with regards to the feasibility of the provisions of NEP 2020?
- What is the scope of innovation in addressing those gaps?

District Institute of Education and Training (DIET) – A brief Introduction: National Policy of Education, 1986 proposed the establishment of the District Institute of Education and Training which was further implemented in 1990s with the initiation of the first set of DIETs. The core institutional focus of these institutions was set to spearhead continuous teacher professional development as well as to impact school improvement programmes at the district level. Besides direct field interventions and school improvement, annual academic planning and review, educational material development, establishing resource centres, research, and studies on education, etc., the major functions of DIETs related to teacher development, the pre-service teacher education, as well as in-service teacher professional development were also designed with the view of facilitating the continuum between the teachers' pre-service and in-service learning and practices. DIETs have had strong linkages with the scheme of Sarva Shiksha Abhiyaan (SSA), now under the purview of Samagra Shiksha Abhiyaan, connecting entire school education with the DIETs. The National Education Policy 2020 recommends developing DIETs as well as its subsidiaries Block Institutes of Teacher Education (BITE), Block Resource Centres (BRC) and Cluster Resource Centres (CRC) or School Complexes to become vibrant institutes of excellence under the leadership of State Institute of Educational Research and Training (SCERT). (Ministry of Education, 2023). Currently, there are 672 sanctioned DIETs, out of which 613 are functional across 748 districts (UDISE+ 2021-22).

Major Inputs of Teacher Professional Development by the DIETs

DIETs provide a set of inputs in terms of a set of professional development activities in varied modes and types. The below table broadly lists them and outlines the possible effects of those inputs on specific elements of teacher development. The very causal connections will be explored in the study.


Activities
• Teacher Trainings
• Learning Tools and resources (including use of technology, digital literacy trainings, etc.)
• On-site school-level support
Possible effects on
• Practical understanding of curriculum and pedagogy
• Teaching-learning practice and classroom processes
• Role clarity and overall engagement

Objectives of the Study

(1) To enquire into the present context of primary teacher professional development in India, through the literature review

(2) To outline the pedagogical implications of the provisions of NEP 2020 for primary teacher continuous professional development (CPD), through the analysis of policy documents and curriculum frameworks

(3) To find out the effectiveness of the existing teacher professional development support provided to the primary teachers by the District Institute of Education and Training (DIET), through a survey comprising teachers' feedback and teachers' sense of self-efficacy.

(4) To analyse the scope of intervention or the gaps in the teacher professional development practices at the DIET with regards to the feasibility of the provisions of NEP 2020, through collating the findings of the teacher feedback and teachers' sense of self-efficacy with the existing CPD practices at DIET using input-output analysis.

(5) To recommend pedagogical innovation in addressing the gaps, based on the learnings from other effective pedagogical practices in similar situations.

Methodology to be adopted

The study will apply mixed qualitative and quantitative methods.

- The theoretical framework and the context of the study will be established through the literature review.
- The situation analysis to find the scope of intervention and identification of gaps will be done through the teacher survey covering teachers' feedback and teachers' sense of self-efficacy to find out the effectiveness of the existing teacher professional development support provided by the DIET.
- The findings of the teacher survey will be collated with the existing CPD practices at DIET through input-output analysis.
- The qualitative method will majorly be applied through:
    - Literature review
    - Open-ended questions in the survey
    - Input-output analysis
- The quantitative method will largely be applied through:
    - Scales of frequency, agreement and quality and close-ended questions in the survey and statistical sections in Input-output analysis

Hypothesis

The following hypotheses pertain to the survey study mentioned under objective 3 – ''To find out the effectiveness of the existing teacher professional development support provided to the primary teachers by the DIET, through a survey comprising teachers' feedback and teachers' sense of self-efficacy.''.

Variables of the study:

- Independent variable:
    - Professional development support provided to the teachers by the DIETs, including training, learning tools and on-site school support.
- Dependent variables:
    - Professional capacity and teaching-learning practices of the teachers
    - Teachers' self-efficacy

Hypothesis 1:

$H_{1:0}$: Professional development support provided to the teachers by the DIETs does not enhance the professional capacity and teaching-learning practice of the teachers.

$H_{1:1}$: Professional development support provided to the teachers by the DIETs significantly enhances the professional capacity and teaching-learning practice of the teachers.

- Indicator: Teachers' experience of the change
  - Tool-1: Teachers' feedback survey
  - Method: Quantitative (scales of frequency, agreement and quality and close-ended questions) and qualitative (open-ended questions)

Hypothesis 2:

$H_{2:0}$: There is no significant relation between the professional development support provided to the teachers by the DIETs and the teachers' self-efficacy.

$H_{2:1}$: There is a significant relation between the professional development support provided to the teachers by the DIETs and the teachers' self-efficacy.

- Indicator: Teachers' beliefs of the change
  - Tool: Teachers' sense of self-efficacy scale
  - Method: Quantitative (Scales of frequency and quantity)

Sampling for the survey study under objective 3:

The following sampling plan is related to the survey study mentioned under objective 3. The proposed study focusing on the pedagogical implications of the provisions of National Education Policy 2020 concerns the primary in-service teachers of India. The proposed location of the survey study is the state of Uttar Pradesh, with the view that it has the highest demographic weight, the largest schooling system, and a diverse socio-economic situation and context for education.

- Sampling pool: all 4,76,207 teachers who teach the primary grades in 1,12,556 government schools across the state of Uttar Pradesh are considered as the sampling pool. (UDISE+ 2021-22)

- Sample selection: The districts will be selected through the cluster sampling technique. The state government of Uttar Pradesh has ranked its 75 districts according to their achievement under 'Goal-Wise District Ranking' for Goal 4: Quality Education for the year 2021-22, based on a set of parameters (Government of Uttar Pradesh, 2024). The study will use this ranking to define the clusters. Out of three ranking sets of 1-20; 21-50; and 51-75, the study has randomly selected three tentative districts of Jhansi, Gorakhpur and Meerut in each ranking set, respectively. Also, these three districts represent three different directional regions – southern, eastern and western, respectively. All the teachers of these three districts will be contacted to take part in the survey. If the total responses exceed the calculated sample size, the sample will be selected through simple random sampling (Noor et al., 2022, p. 79), using a random number generator (Scribbr, 2024) to pick the sample.
- Sample size: The size of the sample for the survey study needs to be 384 teachers to have a confidence level of 95% with a 5% margin of standard error, as per the below-mentioned calculation of the size of the sample for the given population.

$$n = \frac{N * Z^2 * p\,(1-p)}{(N-1) * e^2 + Z^2 * p\,(1-p)} = \frac{476207 * (1.96)^2 * 0.5\,(1-0.5)}{(476207-1) * (0.5)^2 + (1.96)^2 * 0.5\,(1-0.5)} = \frac{476207 * 3.8416 * 0.5 * 0.5}{476206 * 0.0025 + 3.8416 * 0.5 * 0.5}$$

$$= \frac{457349.2028}{1190.515 + 0.9604} = \frac{457349.2028}{1191.4754} = 383.8511502629 = 384$$

(For finite population) Where: n = required sample size; N = population size = 4,76,207; Z = Z-score (1.96 for 95% confidence), p = estimated proportion of the population (0.5); e = margin of error = 0.05 (5%); (* is used as the symbol of multiplication)

Tools for the survey study under objective 3:

- Standardised tool 'Teacher's Sense of Efficacy Scale (TSES)' which is used in different international studies, will be obtained from an open source (EdInstruments, 2024). It has three parameters: effectiveness in student engagement, effectiveness in instructional strategies, and effectiveness in classroom management. Self-efficacy can be defined as the belief in one's ability to plan and carry out the actions necessary to achieve certain results (Bandura, 1997). A teacher's sense of self-efficacy is his/her

own judgement of his/her ability to accomplish the intended results of students' participation and learning. It has been found that the teacher efficacy is related to many important outcomes, including the layers of teachers' engagement and student learning outcomes (Tschannen-Moran & Woolfolk Hoy, 2001). This study will explore the relation between the professional development support provided to the teachers by the DIETs and the teachers' sense of self-efficacy.

- Teacher survey tool will be developed by the researcher. The components and respective points of feedback will range from the teachers' pre-service education, motivation for the teacher profession, in-service professional development to different school-based professional supports. The design of scale will be based on 4-point Likert scale with no neutral mid-point to reduce central tendency biases. The tool is inspired from similar other tools. (NCERT, 2013; OECD, 2018).
- Data collection and analysis tools will be used, including Excel, Google Forms, and other tools for qualitative analysis, including Input-output analysis.

Expected outcome of the research

- The research will be concluded as a written thesis towards the fulfilment of a Ph.D.
- This study may add value to the understanding of ongoing interventions with regards to the provisions of NEP 2020. It could be helpful as a guide when evaluating current methods and developing new ones for teacher preparation and education in general.
- It may contribute to the repertoire of studies, knowledge, and practices in the domains of education policy, pedagogical interventions, and innovation, as well as the professional development of teachers and school education.
- All the stakeholders involved in teacher education and school education, such as policy-makers, curriculum designers, functionaries, educators, and teachers, may find it to be a helpful resource in designing and implementing the related interventions of teacher CPD programmes. The outcome of the research in the form of thesis and articles may be made available to researchers, academicians, and other stakeholders.
- The research may help the researcher in his career advancement and develop his knowledge of the related sector, analytical skills, and research abilities.

Delimitation

- The research is limited to the study of the pedagogical implications of NEP 2020 for primary in-service teacher professional development. The stage of education in discussion is primary, which falls into the foundational stage (partially; grades 1-2) and the preparatory stage (grades 3-5) of the proposed education structure by NEP 2020.
- The main participants of the study are the in-service primary teachers, and that will be limited to a random sample.
- The primary field study is limited to the DIETs and schools in 3 districts in the state of Uttar Pradesh.
- The study will not consider other intervening factors like enrolment, school infrastructure, the number of teachers in the school, etc.

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Registration Number: MRUEDDH012K230019

Supervisor: Prof. (Dr.) Rashee Singh

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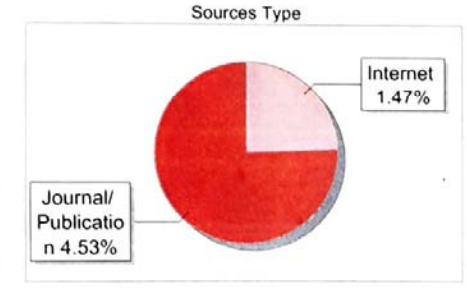

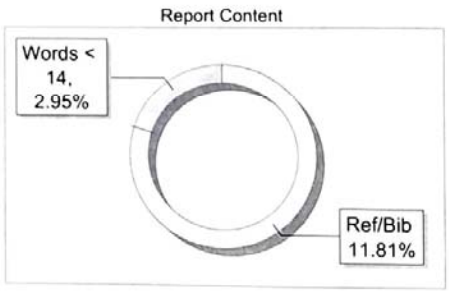

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The Pedagogical Implications of National Education Policy 2020 for Primary In-Service Teacher Professional Development: An Analysis of the Feasibility and Scope of Innovation

SHORT SYNOPSIS

by

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Under the supervision of

Prof. (Dr.) Rashee Singh

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ABSTRACT

The National Education Policy (NEP) 2020 envisions the development of a system of education ingrained in Indian ethos with the goal of making India a leader of global knowledge. It suggests a range of interventions, including in the domain of teacher education. To achieve the sustainable development goal of quality education, India needs to fulfil the current deficit of over 1 million school teachers and streamline the continuous professional development (CPD) of its 9.7 million teachers. Considering the vastness of the policy, it is important to investigate the status of teachers and reflect on the existing process of teacher professional development to understand the possible implementation. The existing studies on

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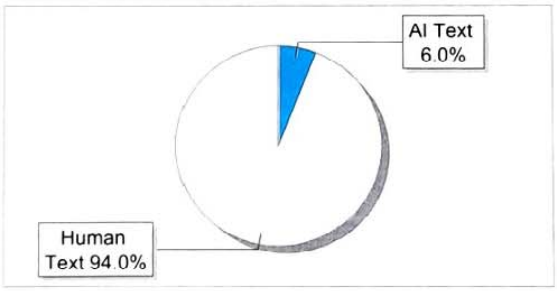

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